

USU Medicine

U n i f o r m e d S e r v i c e s U n i v e r s i t y o f t h e H e a l t h S c i e n c e s



Bringing wounded troops home – pain free • USU through the years
Face to face with Cystic Fibrosis

USU Medicine

The magazine of the Uniformed Services University of the Health Sciences.

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Established by Congress in 1972 and operated by the Department of Defense, the Uniformed Services University of the Health Sciences (USU) is the nation's federal medical school and graduate school of nursing. Its mission includes teaching, training and research. USU graduates serve worldwide.

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The Uniformed Services University of the Health Sciences was former Louisiana Congressman F. Edward Hébert's vision following a mass exodus of physicians from the military after World War II. He spoke of a "West Point" for doctors and it was through his determination and perseverance over the years that Congress established the university in 1972. Hébert died in 1979, and so was unable to see the first medical school class graduate in 1980.

This year we celebrated our 25th commencement.

I believe Congressman Hébert would be very pleased with our remarkable progress. Over the last two decades the class sizes have grown and we have added the Graduate School of Nursing that has, itself, expanded since its genesis 10 years ago. Our basic science graduate program enrollment has grown from the original one student in 1981 to more than 160 students in eight disciplines now. USU has led the way in developing interdisciplinary degree programs, including our successful Emerging Infectious Diseases program. These quality offerings have attracted talented faculty and research staff whose many significant contributions to science and medicine include the use of effective regional anesthesia and nerve blocks on the battlefield to reduce narcotics use and alleviate pain in wounded soldiers medically evacuated from the combat theater of operations, and the establishment of centers working to ease the pain and suffering of cystic fibrosis patients.

The work of our faculty and staff is often on the cutting edge of science. In fact, more than 65 U.S. patents and additional foreign patents have been awarded for a variety of technological and research advances borne at USU since 1980 that have beneficial implications for the military as well as the private sector.

While the notable achievements of our faculty and staff bring significant credit to the university, our alumni are our true "bread and butter." Our physician graduates now make up almost 25 percent of the medical officers on active duty. The reputations of most health sciences universities are based on the quality of their teaching hospitals and on their research laboratories. Their reputations play a large part in the annual giving campaigns conducted by the schools, helping them to solicit alumni donations to erect another building on campus, add a new wing, or offer scholarships. But unlike those other universities whose interest in the outcome of their alumni relates to dollars, USU's interest is focused on gathering information: information on the accomplishments, deployments, leadership roles, research activities and other achievements of our graduates upon which our reputation, in the eyes of the Congress and DoD leadership who provide our funding, is based. Our annual alumni contributions are solid bricks of information that make up the foundation—not of another dormitory or lecture hall—but the future of military medicine.

Part of the vibrancy of any organization is its constant renewal of programs and employees. This year I will retire after almost 50 years of public service. A nationwide search is now underway to find a new university president who is committed to meeting our core mission while continuing to build upon the contributions of our many talented alumni, faculty and researchers to military medicine, the nation and the world. My greatest honor and privilege has been to represent and support all those who molded and shaped USU into the vibrant, invaluable institution that Congressman Hébert envisioned it would be, and will continue to be well after we celebrate our 50th graduating class and beyond.

James A. Zimble, M.D.



A handwritten signature in dark ink, appearing to read "Ja a Zl", written in a cursive style.

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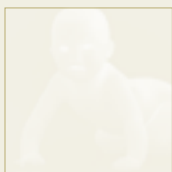
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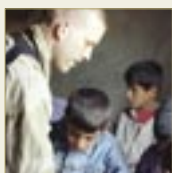
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Rich Honored as One of the World's Outstanding Surgeons

Dr. Norman M. Rich joined 12 of the world's most prominent surgeons earlier this year when he was named the Michael E. DeBakey Award recipient by the Michael E. DeBakey International Surgical Society. DeBakey, an internationally renowned cardiovascular surgeon, medical inventor, medical statesman, and teacher, has trained thousands of surgeons since 1948. In 1977, the Michael E. DeBakey International Surgical Society was founded with the goal of perpetuating DeBakey's vision through scholarship, training and recognition.

Rich, the chair emeritus and namesake of USU's Norman M. Rich Department of Surgery, was presented the award at the Society's 25th Congress in Houston in May for his significant contributions to medicine and surgery over the past 40 years, including the establishment of the Vietnam Vascular Registry and his service as chairman of the surgery department at USU.

The Michael E. DeBakey Award is a singular honor bestowed only on the



world's most outstanding surgeons. Rich is the 13th surgeon worldwide to ever have received this award, a bronze likeness of DeBakey. Since 1978, the Michael E. DeBakey International Surgical Society has selected a surgeon to receive the award at their biennial

meeting, with the exception of 2002. Previous recipients include:

- 2000: John O. Ochsner, M.D.
- 1998: F. William Blaisdell, M.D.
- 1996: Frank C. Spencer, M.D.
- 1994: C. Rollins Hanlon, M.D.
- 1992: Henry Bahnson, M.D.
- 1990: E. Stanley Crawford, M.D.
- 1988: John Kirklin, M.D.
- 1986: Norman Shumway, M.D.
- 1984: David Sabiston, M.D.
- 1982: Frank Gerbode, M.D.
- 1980: Alton Ochsner, M.D.
- 1978: Charles Dubost, M.D.

Rich's ties to DeBakey were formed years ago when he was introduced to the famed physician while an undergraduate student at Stanford University. DeBakey has been a loyal supporter of USU, serving on the surgery department's Visiting Board since the university's beginnings. DeBakey also served as past-president of the USU Surgical Associates and was presented with an honorary degree in 1996.

Neurology Chair Named

William W. Campbell, Jr., M.D., was selected as the new chair of the USU Department of Neurology, replacing Bahman Jabbari, M.D., who stepped down earlier this year to accept an appointment at Yale University. Jabbari joined the USU neurology faculty in 1977 and became chair of the department in 1998.

Campbell, an Army lieutenant colonel and professor of neurology at USU, was chosen for the position following a nationwide search. Prior to his selection, Campbell served as chief of clinical neurophysiology and program director for the clinical neurophysiology fellowship program at Walter Reed Army Medical Center in Washington, D.C.

The new chair earned his Doctor of Medicine degree in 1970 at the Medical College of Georgia in Augusta. He completed



his neurology residency in 1976 at Letterman Army Medical Center in San Francisco and a neuromuscular disease and electromyography fellowship in 1980 at the Medical College of Georgia.

Campbell was recently selected for promotion to colonel and will pin on his new rank Oct. 1. He has more than 28 years of commissioned service, including eight and one-half years on active duty in the Air Force, followed by 16 years as an Army reservist before returning to active service in the Army four years ago.

Campbell is a diplomate of the American Board of Psychiatry and Neurology and the American Board of Electrodiagnostic Medicine, and a fellow in the American Academy of Neurology and the American Association of Electrodiagnostic Medicine.

Moul Named New Urology Chief at Duke University Medical Center

Judd W. Moul, M.D., professor of surgery in the Norman M. Rich Department of Surgery at USU, was named the new chief of the division of urology at Duke University Medical Center.

Moul, a retired Army colonel and former director of the Center for Prostate Disease Research, whose clinical practice focuses on broad aspects of prostate cancer and prostate disease, is a noted authority on prostate cancer in African-American men, biochemical recurrence of prostate cancer, prostate biopsy technique and nerve-sparing radical prostatectomy.

His appointment, after a national search that began in mid-2003, was announced by Danny O. Jacobs, M.D., chair of the department of surgery at Duke University Medical Center.

"Judd is an enthusiastic and dynamic leader who will build upon the strengths of the division of urology while cultivating new research and recruiting new faculty," said Jacobs. "In addition to his outstanding clinical research involving prostate cancer, Judd has an established track record



of bringing together multi-disciplinary programs that unify efforts and benefit patients."

Moul is nationally recognized for his creation of a U.S. military-based prostate disease research database that houses information on more than 20,000 prostate cancer patients treated at nine collaborating institutions. He

will continue his work with the database as a consultant to DoD.

He has received grants from the National Institutes of Health, DoD, Veterans Affairs and CaPCURE Foundation, and managed the cumulative \$50 million in grants from the U.S. Army Medical Research and Materiel Command since the inception of the Center for Prostate Disease Research.

Honors received include the 1995 American Medical Association Young Physicians Section Community Service Award for his national involvement in prostate cancer patient support groups, the 1996 Sir Henry Wellcome Research Medal and Prize from the Association of Military Surgeons of the United States, and selection as a 1994 Fellow for the American Urological Association/European Association of Urology International Academic Exchange Program. In 1997, Moul was the recipient of the Gold Cystoscope Award from the American Urological Association. He received the Baron Dominique Jean Larrey Military Surgeon Award for Excellence in 1998 and the Presidential Award from the Uniformed Services Urology Research Group in 2000.

USU to Institute Founders' Day and Reunion Weekend Celebrations

The Uniformed Services University will mark its founding with an annual celebration beginning in September 2005.

The first observance of "Founders' Day" will be held on Friday, Sept. 9, 2005, with formal and informal events for staff, faculty, students, alumni, and their families held on the main campus in Bethesda, Md., and at several satellite locations throughout the U.S. and overseas where large numbers of graduates are assigned.

Next year, the charter class of the School of Medicine will enjoy its 25th graduation anniversary; in the same year, the charter class of the Graduate School of Nursing

will recognize its 10th graduation anniversary; and the following year the charter class of School of Medicine graduate students will experience its 25th anniversary. The university, working with the USU Alumni Association, will also combine its first Founders' Day celebration with an annual Reunion Weekend to celebrate the significant graduation milestones of the various classes since 1980. Reunion Weekend will be held Sept. 8-11, 2005, on the main campus, and will include a wide series of events of educational, cultural and social interest and attraction to our graduates and their families, as well as to the staff, faculty and students.

AFRRI Microbiologists Awarded EPA Gold Medal

Thomas B. Elliott, Ph.D., and Michael O. Shoemaker, Ph.D., have been awarded the Gold Medal for Exceptional Service by the U.S. Environmental Protection Agency (USEPA). The two Armed Forces Radiobiology Research Institute scientists were members of the Brentwood Crisis Exemption Team and were cited for their extraordinary contributions to the safe and effective inactivation of anthrax spores contaminating the U.S. Postal Service Brentwood Processing and Distribution Center (P&DC).

Elliott and Shoemaker are both research microbiologists on the radiation infection treatment research team in the scientific research department of AFRRI. The USEPA

Gold Medal is that agency's highest honor and can be awarded to its employees and other federal government volunteer partners. No other members of the DoD were honored by the USEPA this year. Elliott and Shoemaker participated with 17 other federal team members to evaluate the extensive and detailed procedures proposed by contractors working for the U.S. Postal Service in the remediation action plan for the Brentwood P&DC building on Brentwood Road, NE, in Washington, D.C. These procedures were for fumigating the facility, the sampling and analysis plan for follow-up testing, and determination of preliminary test results with the chlorine dioxide gas to assure the overall effectiveness of the procedures.



The Brentwood P&DC is now the Curseen-Morris P&DC, named for the two USPS employees who died from inhalation anthrax as a result of the dissemination of *Bacillus anthracis* spores from at least five letters in the mail in September and October 2001. A total of 22 persons became infected and five died as a result of exposure to the anthrax. A crisis exemption was required because chlorine dioxide gas is not registered for use as a fumigant against *Bacillus anthracis* spores.

The AFRRI researchers received the Gold Medal, along with the 17 other members of the Crisis Exemption Team, in a ceremony on April 27, 2004.

Nursing Program Earns Accreditation

The Council on Accreditation (COA) of Nurse Anesthesia Educational Programs recently granted continued accreditation to the Graduate School of Nursing for one of its Master of Science in Nursing degree offerings.

The Nurse Anesthesia program, under the guidance of former program directors Lt. Col. Paul Austin, U.S. Air Force, and Navy Captain Cynthia Cappello, earned the maximum 10 years continued accreditation offered as well as the council's congratulations.

"...COA would like you to know that very few programs are not required to submit progress reports following an accreditation review and even fewer programs have achieved the

maximum accreditation of 10 years," said Francis Gerbasi, C.R.N.A., Ph.D., the director of accreditation and education for COA. "Therefore, the members of the COA are particularly happy to offer their congratulations to everyone at the program who has demonstrated their commitment to meeting the requirements for continued accreditation."

The Nurse Anesthesia program was provisionally accredited by the COA in 1994, followed by official accreditation in 1997. The first class of eight students matriculated in 1994 and graduated two years later. To date, 104 students have successfully completed the program. The next accreditation review is scheduled for Fall 2013.

Former Chair and Commandant Selected for VP Post

Retired Army Colonel (Dr.) Barry W. Wolcott was selected as the vice president for executive affairs earlier this year.

Wolcott replaced Charles Mannix, J.D., who served in the position for five years following 10 years as the university's general counsel. Mannix, who holds academic appointments at USU as associate professor of clinical jurisprudence and assistant professor in both the Department of Preventive Medicine and Biometrics and the Department of Military and Emergency Medicine, left the university to become associate dean and chief operating officer for the Dartmouth Medical School in Hanover, N.H.

In his new position, Wolcott also serves as the university's chief of staff and executive secretary to the Board of Regents. He has been assigned to the university twice previously: first, as chairman of the Section of Operational and Emergency Medicine prior to its inclusion in the Department of Military Medicine and, later, as commandant of the F. Edward Hébert School of Medicine from 1990 until 1994.



Following his retirement from the Army after 24 years on active duty, Wolcott founded Informed Access Systems, a telephone-based, nurse operated, demand management system designed specifically for managed care applications. He served as senior vice president for medical affairs and chief medical officer prior to and after the company's merger with Access Health, Inc., in 1996. In 2000, he became senior vice president for medical issues at CareInsite/Medical Manager, which subsequently merged with internet medical information giant, WebMD.

Wolcott, an internist, is a member of the American Board of Internal Medicine, the Society of Medical Consultants to the Armed Forces, Academy of Medicine of the District of Columbia, and a Fellow in the American College of Physicians. He currently holds a faculty appointment as an associate professor in the Department of Military and Emergency Medicine at USU.

USU Alumnus Earns First Star

USU class of 1986 graduate, Thomas Travis, M.D., was recently promoted to brigadier general, following his nomination to the rank by President George W. Bush and approval by the United States Senate.

Travis, the commander of the 311th Human Systems Wing at Brooks City-Base, Texas, was promoted in a ceremony on Sept. 3, 2004. Travis is also the installation commander for military units at Brooks City-Base.

The 311th Human Systems Wing, which is the Air Force home of aerospace medicine, focuses on human-centered science and technology development, human systems acquisition, and aerospace medicine education and training.



Prior to becoming the 311th Human Systems Wing commander, Travis was commander and dean of the U.S. Air Force School of Aerospace Medicine at Brooks City-Base.

Travis is the fourth Doctor of Medicine program alumnus to achieve flag rank. He joins Rear Adm. (Dr.) Connie Mariano ('81), Brig. Gen. (Dr.) Bill Fox ('81), and Brig. Gen. (Dr.) Bill Germann ('82). Mariano is now retired and working at the Mayo Clinic in Scottsdale, Ariz. Fox is the commander of Brooke Army Medical Center, Fort Sam Houston, Texas, and Germann commands Malcolm Grow U.S. Air Force Medical Center at Andrews Air Force Base, Md.

Nominations Sought for Commandant, Brigade Commander

USU is seeking nominations to fill the positions of Commandant, School of Medicine, and Brigade Commander, which will both be available in June 2005. For more information, please contact Dr. Barry Wolcott, vice president for executive affairs, at (301)/DSN 295-3981.



BRINGING WOUNDED


PAIN FREE

by Rudi Williams

American Forces Press Service



TROOPS HOME



April 13 was an unlucky day for 24-year-old Army 1st Lt. Melissa J. Stockwell. That was the day she lost her left leg in Iraq.

Arriving in Iraq on March 9, Stockwell, then a platoon leader with the 1st Cavalry Division, 27th Main Support Battalion, was driving along in a Humvee without doors attached when an improvised explosive device exploded. The impact slammed the vehicle against a guardrail, crushing the young lieutenant's left leg.

"They amputated below the knee that same day, and amputated above the knee here on April 23," Stockwell said from her bed at Washington's Walter Reed Army Medical Center. "The initial amputation was in the 'Green Zone' in Baghdad." The zone is the blocked off, heavily secured area in central Baghdad that houses the Coalition Provisional Authority and other offices.

Stockwell was wracked with pain during medical evacuation flights from Iraq for treatment at Landstuhl Regional Medical Center in Germany, and from there to Andrews Air Force Base, Md., en route to Walter Reed. Medical personnel tried to ease her pain with morphine and other pain management drugs, but the drugs didn't erase all of it.

She arrived at Walter Reed on the night of April 19, and doctors performed a regional anesthesia block the next morning to better manage her pain. Regional anesthesia allows doctors to block signals to the brain from the wound region.

The technique was a godsend for Stockwell. She said the procedure—a continuous

peripheral nerve block in medical parlance—has greatly reduced her pain. "It would be horrible without it," she said. "It has helped me so much!"

Stockwell explained that her pain had gone from a 9 down to 2 daily. The numbers represent a gauge for people with pain—the lower the number, the less pain the person experiences.

"It has been great since I got the anesthesia. All of these blocks have been incredible—absolutely incredible," she declared.

Stockwell said her husband, Army 1st Lt. Richard C. Stockwell, remembers more than she does about what happened during the first couple of days after her injury. "It would have helped on the way back if she had had the regional anesthesia," said her husband, who also was serving with the 1st Cavalry Division in Iraq at the time. "Regional anesthesia is the best thing they've done for her in terms of mitigating the pain. When the first surgery happened in Baghdad, they offered this as a possible method to mitigate pain. But the way the anesthesiologist explained it, (we got the impression it) was experimental. He didn't explain it like it was this great, awesome thing. He said sometimes it doesn't work."

Based on his wife's experience, Richard Stockwell said regional anesthesia should be given, not just offered, to people in similar circumstances. "The plane flights were horrible," he noted. "If she could have had this on the plane, it would have been a lot better."



“...Patients come to us...in agony, and we have the ability to almost flip a switch and they go from being really miserable to almost entirely different human beings. Their entire outlook changes.”



The Army's regional anesthesia pain management initiative started in 2000 as the brainchild of Col. (Dr.) Jack Chiles, associate professor in the USU anesthesia department and the consultant to the Army surgeon general for anesthesia, and Lt. Col. (Dr.) Chester C. Buckenmaier III, ('92), chief of the regional anesthesia section at Walter Reed. Both Chiles and Buckenmaier have performed the procedure at the 31st Combat Support Hospital in Baghdad.

“We were looking for ways we could improve battlefield pain control,” Buckenmaier explained. “We were also trying to find an anesthetic that reduces our logistics footprint. Regional anesthesia has a lot of qualities that make it an ideal battlefield anesthetic. It doesn't require a lot of equipment, and it allows patients to maintain their sensorium. We don't need a lot of machines to provide an anesthetic. It provides excellent conditions for a surgeon to do his job.

“Unlike general anesthesia, which doesn't do anything for post-operative pain control, regional

anesthesia, even with a single injection, lasts a very long time,” the anesthesiologist continued. “Anywhere I place one of these needles, I can place what's called a paraneural (next to the nerve) catheter that will allow me continuous access so we can run infusions of local anesthetic literally for days to control pain.”

Traditionally, morphine has been the battlefield pain controller, he said. “Morphine is a drug that was first systemized in 1803. Now, more than 200 years later, we're still using the same solution for battlefield pain,” Buckenmaier noted. “I'm not suggesting that the job we do in medicine on the battlefield is bad. It's not. We do it better than anybody in the history of warfare. But that doesn't mean we can't do it a little bit better. That's what this whole program is about.”

Noting that service members are very concerned about pain control, Buckenmaier said, “We have examples upstairs (at Walter Reed) where we can show the difference we've made in wounded soldiers' lives with these techniques.”



Recalling the First Battlefield Use of Regional Anesthesia in Iraq

Doctors at Walter Reed have been using regional anesthesia for years, but Oct. 7, 2003, was the first time they used it on the battlefield.

Regional anesthesia involves placement of a catheter through which local anesthetic can be administered to a specific area where the patient is experiencing pain.

“Army Spc. Brian Wilhelm was the first individual that ever had a continuous peripheral nerve block on the battlefield that was used during evacuation,” said Buckenmaier. “We kept him pain-free from Iraq to Landstuhl and from Germany back to Walter Reed by redosing him through those same catheters we inserted in Balad, Iraq. We also used the same catheters during five operations.”

Wilhelm was suffering from a rocket-propelled grenade wound to the back of his leg that blew off the hamstrings.

“Specialist Wilhelm was awake during the operation, just slightly sedated. He was wide awake at the end of the case, interacting with his buddies. It was a happy time, rather than a sorrowful time like it usually is after a general anesthetic, where patients are groggy and feel so bad about what’s happened to them, and you can’t really talk to them.

“With this anesthetic, they’re alert, they’re awake, and they’re talking to you like I’m talking to you right now,” Buckenmaier said. “The first time we used regional anesthesia on the battlefield was a very powerful moment. Brian went through a horrible experience. And, yes, it was a horrible wound. Brian went on to lose his leg, but he’s pain-free.”

Buckenmaier was on a forward surgical team with the 31st Combat Support Hospital in Balad. He said the first definitive surgery wounded soldiers get is at a combat support hospital, and that’s where anesthesiologists work and where regional anesthesia techniques are used.

“I’m unaware of it being used in Afghanistan, but I do know that it’s being used at the 31st Combat Support Hospital in Baghdad and in Balad,” he noted. Chiles is in Baghdad, he added, and Maj. (Dr.) Todd Williams is in Balad.

Buckenmaier said the Army surgeon general was concerned about wounded soldiers being flown from the battlefield in excruciating pain. The surgeon general sent an e-mail to Chiles, who was Buckenmaier’s boss at the time, asking if anything could be done to mitigate pain in wounded soldiers being medically evacuated from Iraq.

“Well, here at Walter Reed, we’d been working with regional anesthesia for a long time,” Buckenmaier pointed out. “We’d been preaching that we could do this for years. So finally, the surgeon general said ‘put your money where your mouth is. Why don’t you go and prove it?’”

Buckenmaier went to Iraq hoping to get a case or two, but it turned out to be much more than he expected. “I wanted that index case, which Brian Wilhelm was, to prove that we could do this,” Buckenmaier said. “But it exploded. It’s such a good idea that the surgeons ceased allowing us to just put it in Americans. They immediately (realized) ‘I don’t have to take this Iraqi prisoner back to the operating room to do a dressing change every time. I can have this doctor put this block in, and he can dose the catheter and do the dressing change right at the bedside.’

“That’s where this is really impacting in Iraq,” the pioneering anesthesiologist continued. “Most of the American soldiers get injured and they’re out of the country within 48 hours. Some of them are moving so fast that we don’t have time to get a block in them. But when the Iraqis get injured, they don’t go anywhere. So these catheters are being used every day in Iraqis.”

Gaining Momentum

Regional anesthesia is gaining momentum as a pain management technique for people wounded in battle. Technically known as a continuous peripheral nerve block, it theoretically can be used on all combat-wounded patients, noted Buckenmaier. But he pointed out that the military medical profession isn't at that point—yet.

“Like so many wars, this war occurred before we were ready,” he said. “These blocks here at Walter Reed have only been around since 2000. We're very busy building a program. It takes money, and the hospital's budget is for the hospital's daily function. I have to get resources to build this program so we can do the training and the academic research that is developing this anesthetic for the battlefield.”

It takes money and time to train Army anesthesiologists, Buckenmaier said. “We've been very fortunate with Congressman John P. Murtha of Pennsylvania, through the John P. Murtha Neuroscience and Pain Institute, who supported us with \$1.2 million last year,” he said. “We're looking for between \$6 million and \$8 million this year to do the research and the academics that it takes to get this to the field (and make it) commonplace.”

Regional anesthesia is being used on the battlefield, but not to the level Buckenmaier would like it to be. “My belief is that it will be there for the next war,” he said.

Regional blocks are only a slice of the Army's regional anesthesia and pain management initiative, which includes traditional narcotics, other medications and the whole gamut of professionals—physical medicine, psychiatrists, rehabilitation specialists and other health care professionals.

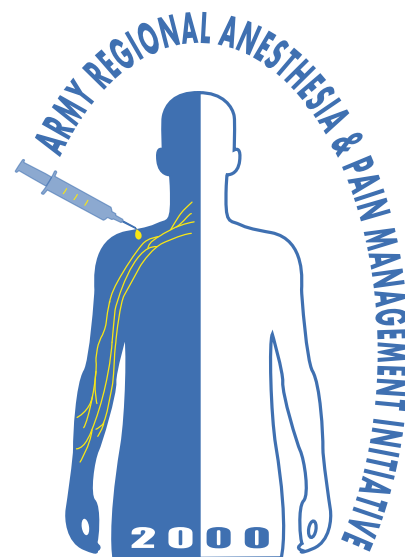
“We're eventually going to move that concept out to the battlefield, where the anesthesiologist will be the pain management physician for the battlefield,” Buckenmaier said. “Pain is our brass ring, and we're already doing a better job on the battlefield. But with this training, doctors will be able to give each soldier a more comprehensive pain management picture.”

He said when people have surgery, they're going to have pain. “If you go to war and you get an injury, you expect to have pain,” he continued. “Well, our society has advanced now to where pain is the ‘fifth vital sign.’” He termed this a euphemism in the medical community, where pain is looked at as importantly as the traditional vital signs—temperature, blood pressure, pulse and respiratory rate.

“A patient having to accept pain is no longer allowed,” he said. “We, as physicians, have to treat that. So we're getting better training on how to manage pain. We're learning more about what pain is every day.”

“It's pretty significant when you're able to use an anesthetic all the way through the levels of care,” Buckenmaier added.

Turning to George Washington University Medical Center's Drs. Olya Quitkin and Lavern Bentt, who were observing the procedure, Buckenmaier asked: “Have you ever stubbed your toe and it hurts really bad, but the next day, it really hurts? That's a phenomenon called wind-up, which is a protective mechanism. Your body has been injured, and it doesn't want you to injure that area again. “That's great when you stub your toe, but when you've had your ankle blown off, that quickly becomes counterproductive,” Buckenmaier said.





He explained that the body gets overwhelmed by pain signals, and the patient experiences “hyperalgesia,” or super pain in layman’s terms.

“If I do anything to this patient that has had his leg or arm blown off, like start an IV or inject a little bit of local anesthetic to get the IV in, they’re like screaming sometimes,” the doctor told the two visitors. “If I was to do that to you right now, you’d just bear it; it’s just a little pin prick—no big thing,” Buckenmaier told the visiting doctors. “But in these guys, every nerve ending is on fire. But when we do these blocks and we stop those pain signals, we find that they don’t develop this hyperalgesia.”

Bentt said she and Quitkin wanted to see how Buckenmaier performed continuous regional anesthesia procedures and how the technique would apply in treating orthopedic injuries. They also wanted to obtain an idea of how Buckenmaier’s section is organized at Walter Reed.

Doctors at George Washington have been performing regional anesthesia and providing regional anesthesia for a long time, but they haven’t been doing continuous peripheral nerve blocks, Bentt noted.

“Some of our frustrations as physicians are that the public is afraid of the needle,” Bentt noted. “In many cases, the nerve block technique is actually preferable to a general anesthetic, which is like using a hammer to put a stitch in when you could use a small needle. And there are fewer requirements for pain medications with the blocks.

“Many patients will resist that because of the fallacious idea that abounds in society, that if I have this, it will damage my nerves or I’ll be paralyzed,” said Bentt, co-director of GW’s pain management center. “So the biggest obstacle is public acceptance.”

She said patients normally have little or no recollection of the nerve block procedure because they’re sedated. “You can’t be completely asleep, because you don’t want to risk injuring a nerve and the patient not being aware enough to tell you,” Bentt said. “Most patients end up being very happy and say, ‘If I’d known this is how good it would be, I probably would have done this a long time ago.’

“The biggest obstacle is public perception,” she noted. “People should know that the needles are so small that the pain from the needle is minimal. In addition, it’s done with sedation, so people have very little recollection of it happening.”

Regional anesthesia minimizes some of the side effects of general anesthesia, such as nausea, vomiting, remaining in the recovery room for a long time trying to get their pain under control, and having to be admitted to the hospital overnight because the pain isn’t well-controlled, Bentt said.

Quitkin said GW is trying to develop a regional anesthesia division that will do more anesthesia blocks. “We hardly do any now,” said Quitkin, attending anesthesiologist at GW’s regional anesthesia center. “Walter Reed already has an established service, and it seems to work quite well. So we decided since theirs works so well, we should go and see how they set it up so we can do the same thing.”



"I haven't been trained in doing continuous peripheral blocks, and that's another reason I wanted to see how they're done at Walter Reed," Quitkin pointed out, adding that the blocks are useful for a wide variety of patients.

Quitkin, who attended a workshop conducted by Buckenmaier last year, said she has already put to use a lot of what she learned at Walter Reed. She said using continuous peripheral anesthesia blocks would save GW time and money. It also greatly lessens the pain experienced by patients for such surgery as total knee replacements.

"Total knee replacement is probably one of the most painful operations in terms of postoperative pain," the doctor noted. "But when you place one of these peripheral catheters in, patients wake up comfortable, therefore their stay in the recovery room is much shorter, and that translates into dollars. It also saves time in nursing care. It can decrease their postoperative stay entirely. It's great for outpatients, because they can go home with these continuous catheters that they can remove by themselves. So their discharge time is also decreased."

Time is also saved when the blocks are put in before the patient is taken to the operating room.

"Patients who have this are thrilled with it," Quitkin said. "They come back and request it. But it's one of those things that's not well-known to the general public, and many people are still a little bit wary of it."

Quitkin said the procedure hasn't been publicized more because it's relatively new. "It has been around in Europe for a long time, but in the U.S. for some reason it hasn't really taken on," she said. "Every procedure involves a certain risk. When you put a needle in your nerve, there's always a chance that you might injure that nerve. But the way the technique is done now, that's so minimized that it's almost negligible."

Some patients also fear being awake during their operation, Quitkin said. "When you tell the patient that they're going to be sedated, to them that automatically means you're somewhat awake," she said. "It's basically been the fault of our profession for not presenting it appropriately to the patients."

Buckenmaier said he believes that regional anesthesia is making the process less fearful. "It's a historical issue," he noted. "Dr. (John) Snow was the first anesthesiologist in England who gave ether to the queen, and we've been going down the gas route ever since."

Snow administered chloroform to assist Queen Victoria with the birth of her son, Prince Leopold, on April 7, 1853.

Many patients fear anesthesia because, Buckenmaier said, "You never knew who your anesthesiologist was, because he showed up in the operating room, had a brief interaction and the next thing you know he has knocked you out. When you wake up, you're nauseated from that gas and you don't feel well. So when the anesthesiologist came back to see you, you weren't all that pleased to see him. That's because you're in pain, you're nauseated, and this is the guy that's sort of causing it all."



That doesn't happen with regional anesthesia, he said, noting a patient interaction that had just taken place. "I was actually building a relationship with that patient that they didn't have before with their anesthesiologist," he said. "I'm also becoming a true preoperative physician. One of the problems with anesthesiologists is that we put ourselves in the (operating room) and do an awesome job, but we pigeon-hole ourselves in there."

About two weeks after his shoulder operation, that patient—Army Sgt. Jonathan M. Oliver, Sr.—said there was a world of difference in the intensity of pain after his knee surgery last January and his more recent shoulder surgery with regional anesthesia.

"That anesthesia was my friend," Oliver said during a recent telephone interview. "I didn't feel any pain at the surgery site. The block lasted longer than the general anesthesia I had during my knee (surgery). I didn't have any pain for more than a day after the (knee) surgery. But after the anesthesia block wore off, the pain kicked in, and I started paying the price. I'm still paying the price!"

Though he takes two strong drugs for pain, they don't control the pain as well as the anesthesia block does, said Oliver, 38, of the Army Reserve 400th Military Police Battalion at Fort Meade, Md. Oliver was activated for service in Iraq on Feb. 20, 2003. He wanted to do his part in Iraq, but didn't go there because of a training accident. He slipped and fell on his shoulder and had to have surgery to repair the damage.

Buckenmaier said he needs to be interested in a patient's pain before, during and after the operation. "I need to be their perioperative medicine physician," he said. "I need to discharge them compassionately. If I do a block and when the patient gets through the operation I kick him out the door, have I really done him a service when that block wears off at 3 o'clock in the morning and he's in agony again? I would argue no.

"But with these continuous peripheral nerve blocks, I can put a catheter in this patient and send him home with a disposable infusion pump. Then that patient can control his own pain, take the traditional narcotics, and in many cases remove the catheter by himself a few days later."

Plans are under way at Walter Reed to follow up on patients in six months to a year and compare the pain experiences of those who had regional anesthesia with those who were treated traditionally with just morphine on the battlefield.

Pointing out that the majority of battlefield wounds are extremity wounds, Buckenmaier told the visiting doctors, "If I can turn off any extremity I want at will, you can see the power in that."

Noting that only a handful of major medical institutions perform the procedure routinely, Buckenmaier said Walter Reed is at the vanguard of regional anesthesia research and is taking the leadership role in developing these techniques throughout the country.

"We're doing things here at Walter Reed that nobody else is doing," said Buckenmaier, who received his training at Duke University



Medical Center in Durham, N.C. “We’ve been driven to it because of the nature of the soldiers we’re taking care of.”

Buckenmaier said he wants to see the Army’s regional anesthesia pain management initiative expanded to include the other services. He started a fellowship program in July, that is directed by Maj. (Dr.) Scott Croll ('95). The first fellow to participate in the program is USU alumna, Lt. Col. (Dr.) Cynthia Shields ('89). Buckenmaier is looking at the Air Force and Navy “to train with us to be the proponent for regional anesthesia in those services,” he said. “The Air Force is very interested, and (Air Force medical officials) think in the next three to five years they’re going to be coming right along with us.”

He pointed out that spinals and epidurals, used in almost half of the casualties in Vietnam, are “really powerful tools” that deal with the spinal cord. But continuous peripheral anesthesia blocks involve the peripheral nerves that have already left the spinal cord.

“So it’s the next level of regional anesthesia,” Buckenmaier said. “We’re all very good at spinals and epidurals, and if you open a standard textbook, that’s what you’re going to read about. Advanced regional anesthesia is taking it to the next level.”

Calling regional anesthesia “the Cadillac of pain control,” Buckenmaier said, “patients come to us literally in agony, and we have the ability to almost flip a switch and they go from being really miserable to almost entirely different human beings. Their entire outlook changes.”

When a patient is in tremendous pain and a physician can switch that off, “it’s a tremendous power,” he said. “It makes you feel very good, particularly since these are American soldiers, the finest citizens we have in the country.”

As with any medical procedure, regional anesthesia is not totally risk-free, the doctor said. “Any time I stick a needle anywhere, there’s a risk of injury or infection,” he explained. “Any time I’m working with nerves, there’s a risk of injury to the nerve. Fortunately, because of the training we go through, those risks are very small.”

No cases of a patient having a problem with toxicity from a continuous infusion of local anesthetic have turned up so far in the medical literature or in his own experience, Buckenmaier said.

“You can’t say that for morphine,” he noted. “You saw (in) the movie ‘Saving Private Ryan,’ when the medic gets hit and they use all those morphine ampules in his thigh? They basically euthanize him on the battlefield. I shudder to think in the history of medicine in the military, how many soldiers we’ve euthanized in that manner in the name of compassion.”

Morphine, when it’s your only choice, is a very difficult drug to use in a battlefield environment. But morphine and other opioid medications can be used with impunity in a hospital environment, he said.

“We’re changing the way anesthesia is done on the battlefield today as we speak,” Buckenmaier said.

1972 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82



Anthony Curreri
President



Jay P. Sanford
Dean, SOM



David Packard
Acting President



Jay P. Sanford
President



- 1972 – Congress passes the Health Professions Revitalization Act of 1972 (Public Law 92-426;86 STAT.713) that establishes the Uniformed Services University of the Health Sciences after years of effort by Louisiana Congressman F. Edward Hébert.
- 1973 – The first Board of Regents members are appointed. The board meets for the first time on May 31. The location for the university, on the grounds of the National Naval Medical Center in Bethesda, Md., is selected.
- 1974 – Anthony R. Curreri, M.D., is sworn in as the first president of USU on January 7.
- 1975 – Administrative offices are established over Peoples Drug Store on Arlington Road in downtown Bethesda. Jay P. Sanford, the founding dean of the school of medicine arrives in March, and a groundbreaking ceremony is held on July 10.
- 1976 – The first academic department chairs are confirmed in March. The first medical school class of 32 students begins study at the Armed Forces Institute of Pathology in Washington, D.C., in October. David Packard is named as acting president.
- 1977 – Construction on the first permanent building (Building A) is completed and accepted in August. Classes move to USU campus.
- 1979 – The remainder of the permanent buildings on the USU campus are completed.
- 1980 – The first Combat Casualty Care Course (C-4) is held in April at Camp Bullis in San Antonio, Texas. It later leads to the establishment of Operations Bushmaster and Kerkesner. The charter medical school class graduates 29 students in May on the USU campus.
- 1981 – Stephen Huot is the first basic science graduate program student to be awarded a Ph.D. (in physiology). Dr. Sanford is appointed as president of USU.
- 1983 – Congress designates the School of Medicine the “F. Edward Hébert School of Medicine” in honor of the late Louisiana Congressman who was responsible for USU’s creation. The Henry M. Jackson Foundation for the Advancement of Military Medicine is established by Congress to support the university’s teaching and research programs.

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Harry C. Holloway
Interim Dean



James A. Zimble
President



Nancy Gary
Dean, SOM



- 1987 – President Ronald W. Reagan delivers the commencement address to USU's graduating class on Armed Forces Day, May 13, at the John F. Kennedy Center for the Performing Arts in Washington, D.C.
- 1988 – Col. Thomas Koroscil, U.S. Air Force, becomes the first alumnus to serve on the Presidential medical team at the White House under President George Bush.
- 1990 – Dr. Sanford resigns as president and dean of USU on November 16. Deputy Dean and former psychiatry department Chair Harry C. Holloway, M.D., serves as interim dean.
- 1991 – Former Navy Surgeon General and retired Vice Adm. James A. Zimble, M.D., is selected as president, USU. More than 100 USU alumni serve in Operations Desert Shield/Desert Storm. Class of '86 alumna, Maj. Rhonda Cornum, is injured in helicopter crash and taken prisoner-of-war in Iraq. She is released a week later.
- 1992 – Nancy E. Gary, M.D., is named as dean, F. Edward Hébert School of Medicine.
- 1993 – The Graduate School of Nursing is established. Former Deputy Surgeon General of the U.S. and retired rear admiral, U.S. Public Health Service, Faye G. Abdellah, Ed.D., Sc.D., R.N., F.A.A.N., is appointed acting dean of the GSN. Three students enter family nurse practitioner program.
- 1994 – The GSN adds a Master of Science in Nursing degree program in anesthesia nursing. Eight students enter the program.
- 1995 – The first two family nurse practitioner students graduate from the GSN. Medical school Dean Gary resigns.
- 1996 – Dr. Sanford dies. A memorial service is held on the USU campus. Dr. Abdellah named as dean, GSN. Val G. Hemming, M.D., pediatrics department chair selected as new dean of the school of medicine. First class of nurse anesthetists graduates. First second-generation USU student, Ens. Nathaniel Almond, enters medical school. He is the son of '81 graduate, Capt. Myron Almond.



Faye G. Abdellah
Dean, GSN



Val Hemming
Dean, SOM



Larry Laughlin
Dean, SOM



Patricia Hinton Walker
Dean, GSN



- 1999 – Twenty-six graduate, through a virtual commencement exercise, as the first nursing students to complete the VA/DoD Distance Learning Program on May 18.
 - 2000 – The state-of-the-art National Capital Area Patient Simulation Center officially opens its doors with a ribbon-cutting ceremony in April. Secretary of Defense William S. Cohen bestows the Joint Meritorious Unit Award on USU on Dec. 11. White House physician and Naval officer E. Connie Mariano is promoted to rear admiral—the first USU alumnus to reach flag rank.
 - 2001 – USU alumni and faculty play key medical response roles in the aftermath of the terrorist bombings on Sept. 11 and anthrax attacks in October.
 - 2002 – USU researchers Ignacio Provencio, Ph.D., and Mark D. Rollag, Ph.D., are lauded by the prestigious journal, *Science*, for their discovery of an optical photoreceptive net, which was named by the magazine as one of the top 10 scientific breakthroughs of 2002. Dr. Hemming steps down as dean. Larry W. Laughlin, M.D., Ph.D., chair of the USU Department of Preventive Medicine and Biometrics, is selected for the position. Dr. Abdellah retires as dean of the Graduate School of Nursing and is replaced by Patricia Hinton Walker, Ph.D., R.N., F.A.A.N.
 - 2003 – More than 300 USU medical and nursing alumni serve in Operation Enduring Freedom and Operation Iraqi Freedom. *U.S. News & World Report* ranks USU's community health program as sixth in the nation. GSN establishes a Master of Science in Nursing degree for Perioperative Clinical Nurse Specialists and a Doctor of Philosophy degree in Nursing Science.
 - 2004 – USU holds its 25th commencement exercise on May 15 at the Daughters of the American Revolution Constitution Hall in Washington, D.C. More than 3,586 medical diplomas, 833 basic science doctoral and master's degrees, and 231 nursing degrees have been awarded to date. Maj. Christopher Lange, an Army psychiatrist, is injured in a mortar attack in Iraq and becomes the second USU alumnus ever to be injured in combat. Field training exercise, Operation Kerkesner, is moved to Fort Indiantown Gap, Pa.
- President Zimble retires in August and a nationwide search is conducted for a successor.

USU through the years



USU has made great strides since it first opened over Peoples Drug Store in downtown Bethesda, Md., in 1975. Medical and graduate degree programs have grown, class sizes expanded, and a new graduate nursing school added. Research efforts over the years have culminated in more than 65 patents in the United States and overseas that improve the health and welfare of our troops and the nation. A robust assortment of educational endeavors, expertise, and programs offered by USU save not only time and precious financial resources, but expand the university's worth to all arms of the government and into our communities.

During the first Persian Gulf War, slightly more than 120 alumni were deployed, providing medical care to troops in

the combat theater of operations. Their varied experiences were brought back to USU and incorporated into the curriculum so that future classes of physicians and nurses would benefit from their knowledge and from their mistakes. This time around, more than three times as many alumni were called upon to serve in operational and key leadership roles in Afghanistan and Iraq; a number of them serving multiple tours of duty. Their successes are often reflected in print and television news accounts.

The accompanying timeline offers a small glimpse of USU through the years. Thirty-two years since Congress authorized its establishment, USU remains a vibrant, strong and vital asset to the nation and the world.



Face to Face with CYSTIC FIBROSIS


Seven-year-old Ashley Smestad was diagnosed at age 12 months with cystic fibrosis (CF), the most common fatal hereditary disease among Caucasians.

According to the Cystic Fibrosis Foundation, CF “is a complicated disease that affects many parts of the body. The cells that line the airways and gastrointestinal tract have a faulty CF gene.”

Approximately 10 million Americans have the defective gene, which scientists discovered in 1989; however, only those with two copies of the gene – one from each parent – develop the disease. For Ashley, and the approximately 30,000 others in this country with CF, that means a lifelong struggle, daily therapy, antibiotics, and an average lifespan of about 33 years.

Understanding Cystic Fibrosis

Cystic fibrosis cells “in the airways, pancreas, and other organs lack the normal channel through which chloride escapes the cell.” When chloride cannot escape, the absorption of excess levels of sodium is inhibited and a thick, sticky mucus is produced. The mucus build-up in the body causes respiratory tract infections, the inability to absorb food, and additional problems. Inflammation in the lungs that is caused by chronic infections and irritation leads to irreversible tissue damage. “Lung function deteriorates until eventually many of those with CF need a lung transplant to survive,” according to the Cystic Fibrosis Foundation.

The background of the page is a soft-focus photograph of a young girl with blonde hair, smiling. She is wearing a medical vest and holding a small object in her hand. The image is overlaid with a faint American flag pattern.

The Human Side

Stephanie Smestad, Ashley's mother, is an active duty Navy enlisted service member who was assigned to the base in Millington, Tenn., when her daughter was diagnosed with CF. The naval hospital there was not equipped to treat CF patients, and Ashley was referred to Vanderbilt University Medical Center, some 200 miles away, for her care. Eventually Stephanie was transferred to the Washington, D.C., area, allowing Ashley to seek treatment within the DoD system at the National Naval Medical Center and Walter Reed Army Medical Center, where she is a patient of Col. (Dr.) Melissa Fries ('84), an obstetrician/gynecologist and medical geneticist, and an assistant professor in the USU Department of Anatomy, Physiology and Genetics.

A typical, bright 7-year-old, Ashley is blonde, blue-eyed, and Fries describes her as "smart as a whip." "She understands that she has to deal with her CF because, if she doesn't, she will get sick," said Fries, "and she has been, as recently as a year ago when she was hospitalized with pneumonia."

Fries says that Ashley's diet is one that most people would love to have: chips, brownies, cookies and other food that is laden with fat and calories. The disease alters her food absorption which can cause her to become malnourished easily if she is not careful with what she eats, so junk food is a vital part of her diet.

Along with her meals, Ashley must take pancreatic enzyme supplements. If she is delayed in eating after taking her supplement, the supplement will start digesting her stomach. If she takes too long to eat, Ashley has to take more supplements. The pills are expensive, but are provided by the hospital.

Ashley must also take regular courses of antibiotics (tobramycin) and use inhalers to break up the thick mucous she regularly coughs up. Ashley wears a special vest that provides chest percussion to help her bring up the mucous. The vest works by compressed air percussion and has a pricetag of more than \$15,000. Luckily, most of the cost was covered by Tricare, the military insurance program, with the remaining expense waived by the manufacturer. Ashley must wear the vest for the rest of her life. "Her family trusts her now to use the vest herself," said Fries, "although she went through a phase where she did the percussion in her room and, because she was tired of it, decided to percuss her teddy bear instead of herself."

On hot, humid, summer days Ashley has a difficult time breathing. For her, a cool, moist environment is optimal. Routine activities can become a challenge for her and her family. Traveling with Ashley is not easy because it means taking her vest and compression system, her inhaler system, all of her medications, and her toys.

Ashley has two siblings, neither of whom has cystic fibrosis. Stephanie debated whether or not she should identify prenatally if the child born after Ashley would be affected with CF, but decided to have testing after birth. That child was only a carrier of CF, with one defective gene, and is healthy.

Ashley's prognosis is not something her mother likes to think about. There is no known cure for CF, but researchers in the Department of Anatomy, Physiology and Genetics are working to develop drug therapies to combat the disease and offer patients a chance at healthier, longer lives.

The Center for Medical Genomics and Proteomics

The Center for Medical Genomics and Proteomics was established in 2002 by Harvey Pollard, M.D., Ph.D., the chairman of the anatomy, physiology and genetics department, to conduct high content screening on cystic fibrosis and other metabolic diseases. Pollard was awarded a grant of nearly half a million dollars from the Cystic Fibrosis Foundation to use this method of analysis to find drugs that would reduce inflammatory signals and potentially correct trafficking of defective Cystic Fibrosis Transmembrane conductance Regulator (CFTR) proteins.

“High content screening provides multiple pieces of information on drugs simultaneously,” Pollard said. The goal, he noted, is to develop a therapy for cystic fibrosis like insulin is for diabetes. “If not a cure, then some sort of therapeutic,” he said.

“Ninety percent of CF chromosomes have one principal mutation – DF508. CF patients have two copies of DF508. There are probably a thousand different mutations, but only one or two people with them, so we focused on the most common. We’re looking for small molecules that bind to the mutant protein. Give it (the protein) eyeglasses and a cane and see if it can function as normal.”

Pollard said that his research team includes 20 faculty members and other scientists. The principal investigators include Gregory Mueller, Ph.D., Meera Srivastava, Ph.D., Ofer Eidelman, Ph.D., David Jacobowitz, Ph.D., Eleanor Metcalf, Ph.D., and Nelson Arispe, Ph.D. Each investigator is looking at a different aspect of cystic fibrosis, which Pollard likens to an elephant. “Some of them are looking at the trunk, some the head, some the legs, etc. The elephant model is very relevant,” he said.

Pollard also explained that the drugs his team is looking at are those that suppress signaling pathways, especially involved in inflammation, among them Digitoxin. He recently published an article in the Proceedings of the National Academy of Science on his discovery that Digitoxin, which was previously used in cases of heart failure and is no longer in production in the United States, was effective in reducing CF-related inflammatory responses. He hopes to be granted permission by the Food and Drug Administration to import Digitoxin from Europe for clinical trials. The team has also discovered, based on their work at USU, two additional drugs ready for clinical trials that may yield promising results for CF patients.

There are 10 centers for medical proteomics in the country. USU’s center focuses its research attention on the lung. The Scientist, one of the most respected scientific periodicals in the country, has cited the center as the model on how to do drug discovery, Pollard said. His strategy is high throughput screening, genomic analysis (to determine which genes are corrected by the drug), and proteomic analysis (to see how changes in the gene correspond to protein changes at the cellular level).

The center also received a \$12.7 million contract from the National Institutes of Health for proteomics research. Proteomics, says the Cystic Fibrosis Foundation, “examines the proteins in a cell or tissue. This technology enables researchers to determine how proteins are expressed, how they function, and how they interact. By identifying proteins that interact specifically with defective CFTR, scientists may discover new ways to correct the defective CFTR protein. Such tools could also allow physicians to track the health of people with CF and possibly their response to treatment.”

Cystic Fibrosis and the Department of Defense

The TriServices Cystic Fibrosis Center is one of 117 clinical care centers accredited by the Cystic Fibrosis Foundation in the U.S. It is based at Wilford Hall Air Force Medical Center and has affiliate sites at the National Naval Medical Center/Walter Reed Army Medical Center in the Washington, D.C., area, the Naval Medical Center, Portsmouth, Va., Naval Medical Center, San Diego, Madigan Army Medical Center, Tacoma, Wash., and Tripler Army Medical Center, Honolulu, Hawaii. The center has been in existence since 1994 and was started originally to meet the unique needs of a mobile Department of Defense beneficiary population. They follow approximately 150 patients center-wide. Lt. Col. Kenneth Olivier, an associate professor in USU's Department of Medicine, has been the center director since 2000. The Portsmouth and San Diego centers are directed by USU alumni Capt. (Dr.) John McQueston ('84) and Capt. (Dr.) Henry Wojtczak ('83), respectively.


Wilford Hall's CF site, which operates as a multidisciplinary clinic, follows 50 patients and employs two pediatric pulmonologists, one adult center coordinator, a registered nurse, respiratory therapist, dietician, and social worker. CF is a multi-organ system disease that affects not only the lungs, but also the gastrointestinal tract (pancreas, bowels), causes sinus disease, and diabetes. In fact, Olivier said, 16 percent of all adult CF patients have CF-related diabetes.

Olivier says there is a tremendous amount of support for CF patients and research and it is one of the world's best-tracked diseases. The Cystic Fibrosis Foundation maintains a clinical database of all CF patients. Every patient is seen quarterly – more often if needed – in CF centers. Their medical information is collected and sent to the Cystic Fibrosis Foundation for inclusion in the national database. Each center then receives an annual “report card” on their patients to compare to national averages. He says this makes it easy to look for ways to improve care and services to CF patients. The Cystic Fibrosis Foundation provides the necessary tools to help them see what changes should be made.

According to McQueston, Portsmouth's latest report card ranks his CF site among the top 10 centers in the United States for lung function outcome, a fact he attributes to the perseverance of the patients and their families in doing their daily therapy. Portsmouth follows 35 CF patients; the oldest a female in her 40s who is married and has an elementary school-aged child. “Just an example of how much modern therapy has reduced the impact of the disease,” McQueston noted.

Pediatric pulmonologist and Naval Medical Center San Diego CF center director Capt. Henry Wojtczak and his CF team provide care to 30 cystic fibrosis patients, one-third of whom are adults. Wojtczak also sees CF patients at off-site clinics located at the Naval Hospital, Camp Pendleton, and Naval Hospital, Twenty-nine Palms, Calif.

“Earlier this year one of our adult CF patients, a 25-year-old dependent wife of an active duty Marine, underwent a successful



living donor related bilateral lung transplantation,” said Wojtczak. “The process was a true ‘joint service’ evolution. The patient received a lower lobe from her Navy active duty brother, as well as her Marine Corps active duty husband. Another example of how well the Navy-Marine Corps team works together. “

Unique to the Naval Medical Center San Diego is the newborn screening for CF that is performed on all infants born at the center. The other two hospitals also screen newborns for the disease. Newborn screening for cystic fibrosis is gaining national acceptance, says Wojtczak, supported by the strategy that early diagnosis and intervention will result in improved long-term outcomes.

While Olivier says the TriServices center does follow several active duty service members with the disease, the majority are children or spouses. Most CF patients are diagnosed as children. He said in the early 1960s a child with cystic fibrosis lived to about age 12. The current life expectancy is age 33, but with each calendar year that passes, it increases another year. That trend has continued for the last 10 years, he said, a fact that Pollard attributes to the use of antibiotics and physical therapy.

“People born today with a diagnosis of CF have a very good possibility of having a normal lifespan,” Olivier said. However, as knowledge about the disease grows, doctors are recognizing and diagnosing more patients with milder gene mutations.

Olivier describes CF as “one of the most fascinating” diseases in terms of patient care and research, and says his work with CF patients has been his “life’s calling.”

For Ashley Smestad the care of physicians like Olivier, Fries, McQueston and Wojtczak, and the research by top scientists, like Pollard, in USU’s Center for Medical Genomics and Proteomics, has meant an opportunity for a longer, healthier life.

Sharon Willis

Faculty Collaborate to Offer Cystic Fibrosis Counseling and Education

In October 2001, the American College of Obstetrics and Gynecology published cystic fibrosis screening recommendations stating that CF education and subsequent screening should be made available to all couples presenting for prenatal care. This recommendation has often been difficult to implement in the military healthcare setting because of a shortage of education materials, administrative personnel and complex laboratory coordination.

When CF screening became a covered benefit Army-wide in November of 2003, patterns of cystic fibrosis referrals sent to the Armed Forces Institute of Pathology suggested that patients were not receiving optimal pre-screening counseling necessary to help them fully understand the significance and value of testing. It is assumed that appropriate CF counseling was not being done either because providers had insufficient time to counsel patients or were not adequately trained to provide CF counseling.

To address these issues, Dr. Diane Seibert, a certified registered nurse practitioner and assistant professor in the Graduate School of Nursing, and Col. (Dr.) Melissa Fries ('84), an Air Force medical geneticist and obstetrician and assistant professor of anatomy, physiology and genetics at USU, collaborated to develop a 10-day training program designed to educate existent advanced practice nurses in CF counseling and education.

The ultimate goal was to provide appropriate information to obstetric patients regarding common genetic issues seen in routine obstetric care, such as cystic fibrosis screening, advanced maternal age counseling and management of abnormal triple screen testing. The course emphasized basic genetic and counseling principles through classroom education, clinical observation, and simulation patient experiences.

The pilot demonstration, entitled the "Genetics Curriculum for Clinical Nurse Educator" project, consisted of three components: preparation and administration of a focused educational program at USU to train nurse educators in genetics and pilot test program interventions in the DoD setting; development of a patient and provider educational website; and training for the nurse educators in the use of a new Army-developed patient information database linked to the electronic birth record (HEALTHeFORCES) for the purposes of documenting patient responses and tracking and recording patient outcomes.

The outcomes of this program that are currently under investigation include recording changes in provider behavior as a result of the training, examination of CF referral patterns pre-and-post nurse education and exploration of patient responses to the intervention provided by the newly trained clinical nurse geneticists.

A critical benefit from the overall project is the establishment of a cohort of trained professionals who can function as conduits for ongoing research in the area of medical decision-making in genetics. The unique format of the curriculum, utilizing didactic programs, simulated patients, online computer education training and clinical observations, was a novel concept which will also be published and lends itself to further research in educational effectiveness in genetic counseling.

Diane Seibert, Ph.D., C.R.N.P.

Armstrong Awarded Multiple Sclerosis Society Grant

Regina C. Armstrong, Ph.D., professor of anatomy, physiology and genetics, and director of USU's neuroscience graduate program, was recently awarded a grant for more than half a million dollars from the National Multiple Sclerosis Society.

The total award for the grant, "Growth factor regulation of CNS remyelination," was \$609,660 over four years.

Armstrong said her project's goal is to learn how to promote recovery of function in the adult human central nervous system by manipulating growth factors to promote the regeneration of

oligodendrocytes that go on to repair damaged myelin in the adult rodent.

Myelin is a specialized lipid structure that facilitates rapid transmission of nerve impulses along axons (the extensions of neurons that send signals to other neurons and other parts of the body). Armstrong explained that repair of myelin can lead to recovery of functions of axons that remain viable but cannot propagate signals due to damaged myelin. She said myelin loss or damage in humans can result from diverse diseases such as multiple sclerosis, as well as trauma, toxins and infections.



Researcher Selected for Fulbright Award

USU Department of Pediatrics researcher Marian Adly was one of fewer than 5,000 individuals worldwide recently selected to receive a Fulbright scholarship.

According to the U.S. State Department's website, the "Fulbright Program is designed to 'increase mutual understanding between the people of the United States and the people of other countries...' With this goal, the Fulbright Program has provided more than 250,000 participants—chosen for their academic merit and leadership potential—with the opportunity to study and teach in each other's countries, exchange ideas, and develop joint solutions to address shared concerns.

"The Fulbright Program was established in 1946 under legislation introduced by former Senator J. William Fulbright of Arkansas. Since its inception more than fifty years ago 255,000 'Fulbrighters,' 96,400 from the United States and 158,600 from other countries, have participated in the Program. The Fulbright Program awards approximately 4,500 new grants annually.

"The Fulbright Program is sponsored by the Bureau of Educational and Cultural Affairs of the United States Department of State under policy guidelines established by the J. William Fulbright Foreign Scholarship Board. The Board is a presidentially-appointed, independent body that formulates the policies, procedures, and selection criteria which govern the Fulbright Program. Currently, the Program operates in 140 countries, including 51 countries with



binational Fulbright Commissions and Foundations. A number of private, cooperating organizations also assist with the administration of the Program."

Adly's Fulbright award will be used in Canada, where she will work toward combined independent research and graduate study at the University of Toronto. She was accepted into the University of Toronto's Institute of Medical Science and will work toward her Master of Science degree. Adly says her study will compliment her research and that she will focus on Toronto's reaction and experience with Severe Acute Respiratory Syndrome, or SARS, a viral respiratory illness caused by a coronavirus. She is interested in their response mechanism and wants to see how it can be improved and if there are lessons that can be shared with the U.S.

Army National Guard Study to Improve Fitness

Dr. Laura Talbot, an associate professor in USU's Graduate School of Nursing, is currently conducting a study to determine if promoting lifestyle activity can be successful in improving physical fitness in Army National Guard soldiers.

The study entitled "Integrating Lifestyle Activity to Improve Fitness among National Guard Personnel" seeks to test the effectiveness of a new Fitness for Life Program to increase moderate to high intensity physical activity and improve cardiorespiratory fitness in Army National Guard soldiers compared to the traditional Army Physical Fitness Program. This new Fitness for Life Program was designed to accommodate the busy lifestyle of the National Guard soldier who is required to balance the demands of both their civilian and military duties. It includes motivational phone calls

and a pedometer to monitor their daily activity. The study is also comparing changes in coronary heart disease risk factors between the two groups.

A doctoral student and two master's degree students in the GSN have been working as research assistants with Talbot and the study's research coordinator, Erica Witham. Air Force Lt. Col. Richard Ricciardi, and Army Captains Mekiesha Caulk and Darrell Evans have all gained field research experience by visiting National Guard Armories on the weekends to assist in recruitment efforts and conduct follow-up assessments.

Assessments entail taking baseline, post- and follow-up measurements on the participating soldiers, including blood pressure, height, weight, carbon monoxide tests, bioelectrical impedance analysis, circumference measurements,

and blood tests. Each of these GSN students will use this experience for their final thesis. Talbot began this study in June 2002 and will continue the research through May 2005.

Talbot recently submitted a National Institutes of Health grant that further explores intervention programs that improve performance. Dr. Patricia Deuster (MPH '95), associate professor, Department of Military and Emergency Medicine, and Dr. Christine Kasper, assistant professor, GSN, are co-investigators on the project, while Lt. Col. (Dr.) Brian Unwin ('88) assistant professor, Department of Family Medicine, and Dr. David Cruess, professor, Department of Preventive Medicine and Biometrics, are collaborators. Dr. E.J. Metter and Dr. Shari Ling from the National Institute on Aging both serve as consultants for the project.



Schaefer Named Kimmel Scholar

Brian C. Schaefer, Ph.D., assistant professor, Department of Microbiology and Immunology, was recently named a Kimmel Scholar of the Sidney Kimmel Foundation for Cancer Research. Schaefer was one of only 15 scientists nationwide to receive this award. Only 85 such awards have been granted to date.

The \$200,000 Kimmel Award provides two years of funding in support of Schaefer's research on the role of NF-kB signaling intermediates in the etiology of MALT lymphoma, beginning July 1, 2004.

According to Schaefer, his project involves determining how two proteins, called MALT1 and Bcl10, may play a role in converting normal B cells into a cancerous B cell tumor called MALT lymphoma. He explained that scientists know that the genes encoding both of these proteins are affected by chromosomal abnormalities in

a high percentage of patients with MALT lymphoma, but there is currently no direct evidence that these abnormalities are necessary or sufficient to cause MALT lymphoma. Schaefer's experiments are directed towards establishing that these alterations in the Bcl10 and MALT1 genes result in changes in the growth properties of normal B cells, directly causing or contributing to the development of MALT lymphoma.

The Sidney Kimmel Foundation for Cancer Research funds the Kimmel Scholars Program, which each year, through a distinguished board of cancer researchers, provides research grants to the nation's most promising young cancer researchers. The goal of the grant program is to improve the basic understanding of cancer biology and to develop new methods for the prevention and treatment of cancer.

Lipsky RH, Jiang X, Xu K, Marko A, Marini AM. 2004. Genomics and variation of inotropic glutamate receptors: implications for neuroplasticity. *Amino Acids*, in press.

Marini AM, Jiang X, Wu X, Tian F, Zhu D, Okagaki P, Lipsky RH. 2004. Brain-derived neurotrophic factor and NF-kB: From genomics to molecular biology to phenotype. *Restorative Neurology and Neuroscience*, in press. Ann Mariani, Ph.D., M.D., Department of Neurology.

Abdellah FG. Establishing the Graduate School of Nursing at the Uniformed Services University of the Health Sciences, *Military Medicine*, Vol. 169, June 2004: vii-x, Faye G. Abdellah, Ed.D., Sc.D., R.N., F.A.A.N., dean emeritus, Graduate School of Nursing.

Williams CM, Wilson CC, and Olsen CH. (Accepted 2004). Dying, death and medical education: Student voices. *Journal of Palliative Medicine*. Cindy Wilson, Ph.D., professor, Department of Family Medicine.

Sinclair JF, O'Brien AD. Intimin types alpha, beta, and gamma bind to nucleolin with equivalent affinity but lower avidity than to the translocated intimin receptor. *J Biol Chem*. 2004 June 1 (Epub ahead of print). PMID: 15173179 (PubMed—as supplied by the publisher). Alison O'Brien, Ph.D., professor and chair, Department of Microbiology and Immunology.

Abdellah FG, Levine E, Sylvia B, Kelley P, Saba V. Military Nursing Research by Students at the Graduate School of Nursing, Uniformed Services University of the Health Sciences. *Military Medicine*, Vol. 169, June 2004. Faye G. Abdellah, dean emeritus, Graduate School of Nursing; Eugene Levine, Ph.D., professor, GSN; Barbara Sylvia, Ph.D., professor, GSN; Patricia Kelley, Ph.D., director, Tri-Service Nursing Research Program, GSN; Virginia Saba, Ph.D., adjunct professor, GSN.

Drifmeyer JE and Llewellyn CH. 2004. Humanitarian Service and Recruitment and Retention of Uniformed Services

Medical Personnel. *Military Medicine*. 169(5), May 2004: Jeff Drifmeyer, and Craig Llewellyn, M.D., professor, Department of Military and Emergency Medicine.

Honma Y, Fernandez RE and Maurelli AT. 2004. A DNA adenine methylase mutant of *Shigella flexneri* shows no significant attenuation of virulence. *Microbiology*. 150:1073–1078. Anthony T. Maurelli, Ph.D., professor, Department of Microbiology and Immunology.

Verma, Anita and Maurelli AT. Identification of two eukaryote-like serine/threonine kinases encoded by *Chlamydia trachomatis* serovar L2 and characterization of interacting partners of Pkn1. *Infection and Immunity*, October 2003: 5772-2784, Vol. 71, no. 10.

Catherino WH, Leppert PC, Stenmark M, Payson M, Potlog-Nahari C, Nieman LK, Segars JH: Reduced dermatopontin expression is a molecular link between uterine leiomyomata and keloids. *Genes Chromosomes Cancer*. 40:204–217, 2004. William Catherino, M.D., Ph.D., assistant professor, Department of Obstetrics and Gynecology.

Gilcreast DM, Warren JB, Yoder LH, Clark JJ, Wilson JA, and Mays MZ (in press). Outcomes of a heel-ulcer prevention program. *Journal of Wound, Ostomy & Continence Nursing*. Linda Yoder, Ph.D., Graduate School of Nursing.

Xing GQ, Russell S, Webster MJ, Post RM. Decreased expression of mineralocorticoid receptor mRNA in the prefrontal cortex in schizophrenia and bipolar disorder. *Int J Neuropsychopharmacol*. 2004 June; 7(2): 143-53. Guoqiang Xing, Ph.D., research assistant professor, Department of Psychiatry.

Sperling LC, Tomaszewski M-M, Thomas DA. Viral-associated trichodysplasia in immunocompromised patients. *J Amer Acad Dermatol*. 2004 Feb;50(2): 318–22. Col. Leonard Sperling, professor and chair, Department of Dermatology.

Meekins A, Lange E, Levine E, Austin P. (in press). Comparison of oxygen reservoir tube length on imposed work of breathing in the Universal Portable Anesthesia Complete. *Military Medicine*. Lt. Col. Paul Austin, director, nurse anesthesia research program.

Azevedo R, Cromley J, and Seibert D. Does adaptive scaffolding facilitate students' ability to regulate their learning with hypermedia? *Contemporary Educational Psychology*, May 2004. Diane Seibert, Ph.D., program director, family nurse practitioner program.

Satin A. Resident competency in the management of shoulder dystocia improves with simulation training. *Obstetrics and Gynecology* 2004;103: 1223–8. Col. Andrew Satin, chair, Department of Obstetrics and Gynecology.

Rohan KJ, Tierney Lindsey K, Roecklein KA and Lacy TJ (2004). Cognitive-behavioral therapy, light therapy, and their combination in treating seasonal affective disorder: A pilot study. *Journal of Affective Disorders*, 80, 273–283. Kelly J. Rohan, Ph.D., assistant professor, Department of Medical and Clinical Psychology.

Schaefer BC, Kappler JW, Kupfer A, Marrack P. Complex and dynamic redistribution of NF-kappaB signaling intermediates in response to T cell receptor stimulation. *Proc Natl Acad Sci USA*. 2004 Jan 27;101(4):1004–9. Brian C. Schaefer, Ph.D., assistant professor, Department of Microbiology and Immunology.

Dalgard CL, Lu H, Mohyeldin A, Verma A. Endogenous 2-oxoacids differentially regulate expression of oxygen sensors. *Biochem J*. 2004 Jun 1;380(Pt 2):419–24. Ajay Verma, M.D., Ph.D., assistant professor, Department of Neurology.

Jones WS, PH Kaleida, JO Lopreiato. Assessment of Pediatric Residents' Otoloscopic Interpretive Skills Using Videotaped Examinations. *Ambul Pediatric* 2004;4:162–165.

Faculty Awards

J. Leonel Villavicencio, M.D., professor, Department of Surgery, was presented with the American Venous Forum's first Founder's Award. The award was given for "exceptional and tireless contributions to the American Venous Forum and to the welfare of patients with venous diseases."

Lt. Cmdr. Christine L. Johnson, assistant professor of pediatrics, was re-appointed to the American Academy of Pediatrics, Committee on Environmental Health, effective July 1, 2004, for a two-year period. Johnson has served on the committee since April 2002.

Lorraine G. Shapeero, M.D., Department of Radiology and Radiological Sciences, was selected for the 2004 edition of *Marquis Who's Who In America*. Shapeero, who is an associate professor of radiology and the director of the bone and soft tissue sarcoma program of the U.S. Military Cancer Institute, joins achievers and leaders from throughout the world in being named for this honor.

Col. Andrew J. Satin, professor and chair, Department of Obstetrics and Gynecology, was appointed to the national residency review committee for obstetrics and gynecology. His

term will begin in January 2005 and he will be one of 12 committee members responsible for review of OB/GYN residency programs in the U.S.

Emmanuel G. Cassimatis, M.D., associate dean for clinical affairs and professor of psychiatry, and Col. Theodore Nam ('82), chief, inpatient psychiatry service, Walter Reed Army Medical Center and assistant professor, USU Department of Psychiatry, received the American Psychiatric Association's "Nancy C.A. Roeske Certificate of Recognition for Excellence in Medical Student Education."

In Memoriam

A biomedical research scientist, medical educator, and academic administrator, Dr. Cinda Helke died on June 13, 2004, of cancer.

Helke made significant research contributions to understanding how the nervous system influences cardiovascular function in health and in diseases such as diabetes. She published over 120 research papers and book chapters, presented her research work in numerous seminars nationally and internationally, and her research was continuously supported by grants from the National Institutes of Health for more than 22 years.

Her skill as a lecturer and teacher of pharmacology to medical students at USU was recognized by many teaching awards from the students. She directed the neuroscience graduate program, developing it into a model interdisciplinary doctoral program. In her most recent position as Associate Dean of Graduate Education, she was a constant champion for the needs of graduate students, a driving force for providing excellence in their training, and promoted the growth, diversity, and modernization of the graduate programs.



Helke was a native of Iowa. She graduated from Creighton University School of Pharmacy and received her Ph.D. in pharmacology from Georgetown University. After a postdoctoral fellowship at the National Institutes of Health, she joined the faculty at the newly established USU where she attained the rank of professor in 1988. Her professional memberships included the American Society of Pharmacology and Experimental Therapeutics, where she served as secretary-treasurer, the Society for Neuroscience, the International Society of Autonomic Neuroscience, the American Diabetes Association, and the American Association of Medical Colleges Graduate Research and Education Group.

She is survived by her husband of nearly 30 years, Joel E. Helke, of Rockville, Md., her mother, Lorna Pieres of Sun City, Ariz., a sister, Mariann Peterson of Des Moines, Iowa, and two brothers, Gerald Pieres of Phoenix, and Patrick Pieres of Simi Valley, Calif.

Cinda J. Helke, Ph.D.

1951–2004

Classnotes

Tu Appointed to D.C. Board of Medicine

USU class of 1989 graduate, Raymond Tu, M.D., was appointed a licensed physician member of the District of Columbia Board of Medicine by Mayor Anthony Williams. Tu joins six other physicians on the 11-member board, which regulates the practice of medicine, acupuncture and physician assistants in Washington, D.C. Tu also serves on the Committee of Government Relations and chairs the Committee of Practice Advocacy for the American Society of Neuroradiology. Tu is a partner of Progressive Radiology/Washington Imaging Associates, a network of 30 outpatient imaging centers.



Second Generation Students

USU's second-generation medical students, 2nd Lt. Catherine Baxter ('07), and 2nd Lt. Anna Makela ('07) pose with their fathers, Dr. John Baxter ('89) and Dr. Neil Makela ('80). The two women are the third and fourth medical students to follow in a parent's footsteps at USU. Lt. Nathaniel Almond ('00), whose father is Dr. Myron Almond ('81) and 2nd Lt. Michael Dirks ('05), son of Dr. Monte Dirks ('84) preceded them. 2nd Lt. Katie Hetz, daughter of Col. Stephen Hetz ('82), recently joined the ranks as a first-year medical student.



Alumna Named to Academy Board of Directors

Maureen O. Padden, M.D., M.P.H. ('92), was recently chosen to serve on the board of directors of the American Academy of Family Physicians.

Padden, a Navy commander, was elected to fill the board's new physician seat during the academy's National Conference on Special Constituencies held last spring. She will be installed on the AAFP board during their annual scientific assembly, which will be held in Orlando in the fall, and will serve a one-year term.

Padden is currently head of the family medicine department at the Naval Hospital, Camp Lejeune, N.C., and also serves as program director for the family medicine residency program there.



notes



HJF Annual Fellowship Awards

Three exceptional USU School of Medicine doctoral graduate students were recently awarded HJF fellowships. The program, established in 1998, is comprised of two Henry M. Jackson Fellowships and one Val G. Hemming Fellowship, that provide stipend and travel support for the students during the fourth or fifth year of their programs.

Andrea McCoy will receive the Val G. Hemming Fellowship Award as a fifth-year student in the USU graduate program in molecular and cell biology. Her research focuses on the composition of the cell wall of the bacterial pathogen *Chlamydia*, a major cause of bacterial sexually transmitted disease in the U.S. and the most prevalent cause of preventable blindness worldwide.



Tyler Best will receive a Henry M. Jackson Fellowship in Medical Sciences as a fourth-year student in the neuroscience graduate program. His research seeks to characterize the activity of a specific neuronal signaling pathway in mouse models of Down syndrome. Furthering this understanding may lead to new therapeutic targets for Down syndrome treatment.



Kathryn Roecklein will receive a Henry M. Jackson Fellowship in Medical Sciences as a fourth-year graduate student in the medical and clinical psychology program. Her investigation focuses on the basis of seasonal affective disorder (SAD), a recurrent depression affecting up to 10 percent of the U.S. population. Roecklein is integrating behavioral genetics and clinical psychology to explore a possible genetic basis for this disease.



Maj. (Dr.) Brian Crownover ('93) provides medical assistance to children in the Iraqi village of Al Jadeed during a medical civil action program visit as a member of the Air Force's 332nd Expeditionary Medical Squadron's detachment 1.

'83

Col. Bradley Harper recently relocated from Puerto Rico to San Antonio, Texas, with the Army's Southern Command. Harper is the unit's command surgeon and is headquartered at Fort Sam Houston.

Col. Michael Spatz is now the Deputy Assistant Surgeon General for Medical Force Development, Medical Corps Director, and Chief, Air Force Medical Service Education and Training, Office of the Air Force Surgeon General, Bolling Air Force Base, D.C. He oversees all force development for the medical corps, to include medical student training and scholarships, graduate medical education, promotions, assignments, special pays, recruiting and retention, as well as all education and training for the Air Force Medical Service.

Kevin Yeskey, M.D., who recently retired from the U.S. Public Health Service, has returned full-time to USU as a member of the Department of Military and Emergency Medicine faculty and as deputy director of the Center for Disaster and Humanitarian Assistance Medicine.

'84

Thomas Taylor, M.D., is now a civilian radiologist in upstate New York. He has been a full partner in the Associated Radiologists of the Finger Lakes since 1994.

Col. Terry Walters is the brigade commander for the 1st Medical Brigade at Fort Hood, Texas.

'85

Jill Antoine, M.D., is a faculty member at The Brigham and Women's Hospital in Boston and is also a Harvard Instructor in anesthesia.

Thomas Byrne, M.D., is the director of the family practice clinic at Central Maine Medical Center in Lewiston, Maine.

Col. Bryan Funke recently transferred from his position as commander of the 14th Medical Group, Columbus Air Force Base, Miss., to become commander of the 25th Medical Group, Misawa Air Base, Japan.

'87

Col. John Powell is now the deputy command surgeon for the U.S. Northern Command at Peterson Air Force Base, Colo. The former commander of the 10th Combat Support Hospital at Fort Carson, Colo., replaced USU class of 1988 alumnus, Col. Robert Gum, in the Northern Command position. Gum is a graduate of the Master of Public Health degree program.

'88

Kevin Tonat, Dr.PH., who earned his Master of Public Health degree from USU, retired from the U.S. Public Health Service and now serves as the executive science officer for Cosmos Alliance Management, based in Washington, D.C.

'90

Microbiology program graduate, **Lawrence Sung, Ph.D., J.D.**, is now a lawyer with the Washington, D.C., firm of Preston Gates & Ellis, L.L.P. Sung specializes in intellectual property litigation, life sciences, patents, technology and intellectual property, and technology transfer and commercialization.

'91

Taras Masnyk, M.D., Ph.D., who received his doctor of philosophy degree in pathology from USU, recently left the Army and his position as chief of neurosurgery at William Beaumont Army Medical Center in El Paso, Texas, and returned to Illinois for civilian practice.

Capt. Karen Parko recently transferred from the Northern Navajo Medical Center in Shiprock, N.M., to San Francisco, Calif. Parko is now assigned to the Neurology and Rehab Service at the San Francisco Veterans' Administration Medical Center, and is also serving as the chief clinical consultant in neurology for the Navajo Area Indian Health Service, U.S. Public Health Service.

Lt. Col. Manuel Valentin is now the chief of aviation medicine at Lyster Army Community Hospital, Fort Rucker, Ala.

'93

Gerard P. Andrews, Ph.D., a graduate of USU's microbiology program, recently left the Army and is now serving as the task area director for product development in the bacteriology division of the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Md. He works with fellow microbiology program alumnus, **Lt. Col. Jeffrey Adamovicz** ('96), who is chief of the bacteriology division.

Lt. Cmdr. Tanis Batsel, who also earned her master's degree in public health from USU in 2000, is now assigned as the chief of the preventive medicine branch for the U.S. Northern Command and the North American Aerospace Defense Command (NORAD), Peterson Air Force Base, Colo.

Maj. Kerry Jepsen, an Air Force orthopaedic surgeon at Landstuhl Regional Medical Center, Germany, cares for injured troops coming back from Iraq and Afghanistan and served as primary physician for Thomas Hamill, the U.S. civilian contract employee who was captured in Iraq, but later escaped.

Maj. Jose Ortiz, M.D., is now the command surgeon for Rock Island Arsenal in Illinois. Ortiz is an occupational medicine physician.

'94

Steven Hudson, M.D., J.D., is a second-year resident in ophthalmology at the Medical University of South Carolina in Charleston. He left active Naval service in 2002, but remains in the Reserves. Hudson plans to return to the Washington, D.C., metro area after residency for a retina fellowship.

Lt. Cmdr. Ronald Boucher is assigned to the Naval Medical Center in San Diego, Calif., where he works as a musculo-skeletal radiologist.

Maj. Thomas Herold completed his residency in emergency medicine and is now on staff at Darnall Army Community Hospital, Fort Hood, Texas.

'95

Tina McIntyre, Ph.D., a graduate of USU's pathology program, is now the administrator for the Inflammation and Innate Immunity Study Section and Immunity and Host Defense Study Section at the Center for Scientific Review, National Institutes of Health, in Bethesda, Md.

Maj. Michael Koteles was named U.S. Air Force Clinical Excellence Field Grade Officer of the Year by the Air Force Surgeon General earlier this year. Koteles is assigned to the 99th Medical Group, Nellis Air Force Base, Nev., as the element chief of the medicine department.

'96

Maj. Janet Bourne now serves as the officer-in-charge of the student health clinic, 82nd Medical Operations Squadron, Sheppard Air Force Base, Texas. Bourne is a graduate of the family nurse practitioner program.

Lt. Col. Kathryn Fuller is the director, Composite Health Care System II, in the office of the Air Force Surgeon General, Falls Church, Va. Fuller is an alumna of the family nurse practitioner program.

'97

Lt. Col. Nancy Heisterman recently left her position as chief of utilization review at David Grant Medical Center, Travis Air Force Base, Calif., to start a new Nurse Transition Program at Nellis Air Force, Nev. The new program is part of the hospital's professional education department. Heisterman is a graduate of USU's family nurse practitioner program.

James (Jay) Phillips, Ph.D., a graduate of USU's neuroscience program, is now the health sciences grants manager for the Congressionally Directed Medical Research Programs at Fort Detrick in Frederick, Md.

Maj. Christopher Lange, based at Fort Hood, Texas, recently received a purple heart for injuries sustained from a mortar attack while serving as the division psychiatrist for the 1st Cavalry Division in Iraq. He becomes the second USU

alumnus ever to be injured in combat, after Rhonda Cornum ('86).

'98

Maj. Rhonda Adler, a family nurse practitioner, separated from the Air Force in July and her position as element chief of the family practice clinic, 31st Medical Operations Squadron, Aviano Air Base, Italy.

'99

A graduate of the Department of Medical and Clinical Psychology's clinical psychology program, **Steven Berkowitz, Ph.D.**, recently moved from the Veterans' Administration Cooperative Studies Program to become director of the division of operations and committee support, coverage and analysis group, Center for Medical and Medicaid Services, at their headquarters in Baltimore, Md. Berkowitz will be involved in the scientific evaluation of the evidence base for Medicare's National Coverage Decisions.

'00

Arlene Casten, a graduate of the adult nurse practitioner program, works at the Veterans' Administration Medical Center in Milwaukee, Wis. Casten serves as a nurse practitioner and also as the registry coordinator for Gulf War and Agent Orange patients.

Capt. Daniel Madsen is in the midst of an Air Force Institute of Technology-sponsored residency in radiology at the University of Utah in Salt Lake City.

'01

Capt. Tina Kinsley recently left her position as a flight surgeon assigned to the 51st Medical Group, Osan Air Base, Korea, to begin a dermatology residency at Wilford Hall Medical Center, Lackland Air Force Base, Texas.

'02

Capt. Wayne Latack is a resident in the medicine department at the 74th Medical Group, Wright-Patterson Air Force Base, Ohio.

Capt. Keith Joe is assigned to Wilford Hall Medical Center, where he is a resident in orthopaedics.

Lt. Miguel Gutierrez is assigned as a diving medical officer with the Explosive Ordnance Disposal Mobile Unit-4 in Bahrain.

Maj. Denise Lyons, a graduate of the family nurse practitioner program, is currently stationed at Kimbrough Ambulatory Care Center, Fort Meade, Md. Lyons is also a member of the medical team for the Joint Alternate Communications Center.

Capt. Curtis Aberle serves as the officer-in-charge of the U.S. Army Health Clinic, Camp Bullis, in San Antonio, Texas. Aberle is a graduate of the family nurse practitioner program.

Capt. Toney Banks is a graduate of the nurse anesthesia program and is assigned to the 81st Medical Group, Keesler Air Force Base, Miss.

'03

Capt. Ilse Alumbaugh is a family nurse practitioner assigned to the U.S. Army Health Clinic, Schofield Barracks, Hawaii.

Capt. Colleen Daniels, a graduate of the Master of Public Health degree program, was recently awarded the Myra McDaniel Writers Award for her paper on an ergonomics-based approach to preventing musculoskeletal disorders in the Army. This competitive award is given to the entry judged best on the basis of its pertinence to occupational therapy practice, education, research or administration, originality, style and clarity of communication, and scholarship. The winner is selected by the chief of the occupational therapist section, Office of the Army Surgeon General. Daniels was the first graduate of the Occupational Ergonomics track in the MPH program and currently is at the U.S. Army Center for Health Promotion and Preventive Medicine.



USU President James A. Zimble (left) recently visited the Naval Hospital Camp Lejeune, N.C. to present a plaque acknowledging the facility's teaching affiliation with the university. This was one of a series of such visits to medical treatment facilities around the country with ties to USU's educational programs. With Zimble are (l to r) hospital commander Capt. Richard Welton, Cmdr. Maureen Padden ('92) and Capt. Robert Ringler ('82).



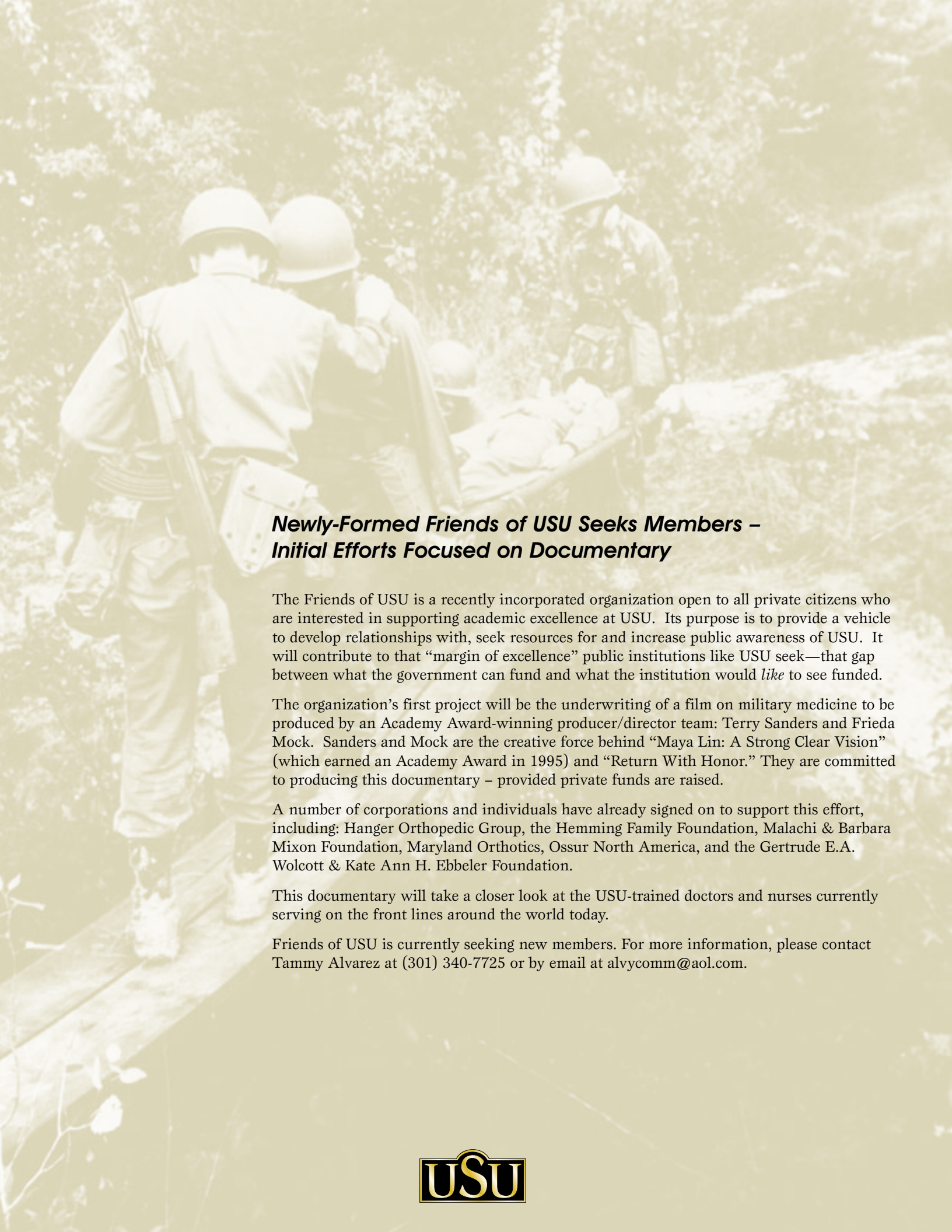
At left, USU alumni stationed at the 31st Combat Support Hospital, Baghdad, Iraq, stand on the rooftop of Ibn Sina Hospital. Numbering nine of the 32 total physicians at the time of the photo, they made up almost one-third of the CSH physician staff.

From left to right, back row: Maj. Chris Kochan ('98), anesthesiology; Maj. Rich Gullick ('94), neurosurgery; Maj. Scott Greenwald ('95), radiology; Maj. Jim Sebesta ('95), general surgery; and Maj. Stuart Roop ('96), pulmonary/critical care. Left to right, front row: Maj. Kim Wenner ('97), family medicine; Maj. Ginny Parker ('95), vascular surgery; Lt.Col. Jamie Grimes ('90), neurology/psychiatry; and Lt.Col. Lise Cote ('87), family medicine.



Col. Charlie Beadling ('84) poses with other USU alumni during site visits to Air Force medical facilities in the Middle East. Beadling was serving as the Central Air Forces surgeon at the time. At left, Lt. Col. Gary Benedetti ('90), Maj. Brian Delmonaco ('98), and Beadling stand outside the 447th EMEDS at Baghdad International Airport. At right, Beadling is joined by Col. Bill Gray ('83), Maj. August Hein ('93) and Lt. Col. Shawn Varney ('93) at the 379th EMEDS based at Al Udeid, Qatar.





Newly-Formed Friends of USU Seeks Members – Initial Efforts Focused on Documentary

The Friends of USU is a recently incorporated organization open to all private citizens who are interested in supporting academic excellence at USU. Its purpose is to provide a vehicle to develop relationships with, seek resources for and increase public awareness of USU. It will contribute to that “margin of excellence” public institutions like USU seek—that gap between what the government can fund and what the institution would *like* to see funded.

The organization’s first project will be the underwriting of a film on military medicine to be produced by an Academy Award-winning producer/director team: Terry Sanders and Frieda Mock. Sanders and Mock are the creative force behind “Maya Lin: A Strong Clear Vision” (which earned an Academy Award in 1995) and “Return With Honor.” They are committed to producing this documentary – provided private funds are raised.

A number of corporations and individuals have already signed on to support this effort, including: Hanger Orthopedic Group, the Hemming Family Foundation, Malachi & Barbara Mixon Foundation, Maryland Orthotics, Ossur North America, and the Gertrude E.A. Wolcott & Kate Ann H. Ebbeler Foundation.

This documentary will take a closer look at the USU-trained doctors and nurses currently serving on the front lines around the world today.

Friends of USU is currently seeking new members. For more information, please contact Tammy Alvarez at (301) 340-7725 or by email at alvycomm@aol.com.





"I am profoundly grateful to the faculty, staff, students and alumni who, through their remarkable contributions, continue to enhance the reputation and stature of our university. With the establishment of the Friends of USU organization and the strengthening of the Alumni Association, I foresee an even greater margin of excellence.

It has been a delight and privilege to have been at the helm of this learning institution which Jay [Sanford] built for the past thirteen years. It has indeed become the Academic Health Center for the Military Healthcare System, learning to care for those in harm's way!"

– James A. Zimble, M.D., President, USU

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